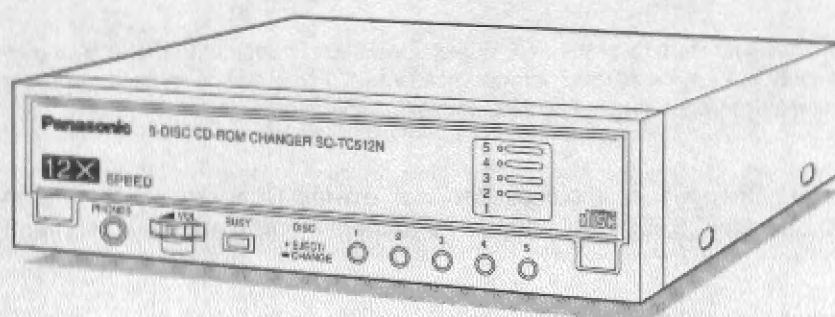


Panasonic®

5-Disc CD-ROM Changer

SQ-TC512N

Operating Instructions



Before connecting, operating or adjusting this product, please read these instructions completely. Please save this manual.

Interface: Enhanced IDE interface with ATAPI Support.
For IBM PC-AT compatible DOS/Windows

COMPACT disc COMPACT disc
DIGITAL AUDIO

IMPORTANT SAFETY NOTICE

To prevent fire or electric shock, do not expose this appliance to rain or moisture.

FEDERAL COMMUNICATIONS COMMISSION (FCC) RADIO FREQUENCY INTERFERENCE STATEMENT

Class B Computing Device

CAUTION:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any unauthorized changes or modifications to this equipment would void the user's authority to operate this device.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC WARNING: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

NOTICE

- (1) Reproduction of any part of this publication without authorization is prohibited.
- (2) The manufacturer reserves the right to revise this document without notice at any time.
- (3) For most up to date information, please refer to README.TXT of the Setup disks.
- (4) If any questions arise concerning this document, please contact your sales representative or Panasonic Technical Support at 1-800-Panasys (1-800-726-2797).

LASER SAFETY INFORMATION

Class 1 LASER Product

This equipment is certified to comply with DHHS Rule 21 CFR Chapter 1, Subchapter J in effect as of date of manufacture.

This equipment is classified as a Class 1 level LASER product and there is no hazardous LASER radiation.

Caution:

- (1) The use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
- (2) The CD-ROM Changer is designed to be incorporated into a computer-based system or unit which has an enclosed cover. The CD-ROM Changer may not be used as a stand-alone unit.

LASER Specification:

Type: Semiconductor laser GaAlAs

Wave length: 780 nm

TABLE OF CONTENTS

IMPORTANT SAFETY NOTICE	2
LASER SAFETY INFORMATION	2

Chapter 1	INTRODUCTION.....	4, 5
<i>Before Use</i>	IDENTIFYING THE KIT CONTENTS	6
	OPERATION GUIDE	6, 7
	PARTS AND FUNCTIONS	8

Chapter 1

Chapter 2	INSTALLING THE CD-ROM CHANGER.....	9-11
<i>Hardware Installation</i>	Before Installation.....	9
	Installing the CD-ROM Changer.....	9-11
	Other Settings (Jumper Pin)	11
	REMOVING THE SHIPPING SPACER	12, 13
	Removing the Shipping Spacer	12
	Inserting the Shipping Spacer	13

Chapter 2

Chapter 3	INSERTING/REMOVING DISCS.....	14, 15
<i>Software Installation & Operation</i>	If the tray does not eject automatically	15
	INSTALLING & OPERATING THE SOFTWARE	16
	INSTALLING & OPERATING UNDER WINDOWS 3.1, 3.11.....	17-19
	Installing the Utility and the device driver	17
	Using the Panasonic Disc Director in DOS/Windows 3.1	18
	SOS Utility	19
	INSTALLING & OPERATING UNDER WINDOWS 95	20-26
	Installing the Utility and the device driver	20-21
	Using the Smart CD Manager	22-23
	Using the Smart CD Audio Player	24
	Using the Panasonic Disc Director in Windows 95	25-26
	Playing Audio CDs.....	26
	INSTALLING & OPERATING UNDER WINDOWS NT 4.0.....	27-29
	Installing the Utility and the device driver	27
	Using the Smart CD Manager	28
	Using the Smart CD Audio Player	29
	Using Microsoft's Windows NT CD Player	29

Chapter 3

Chapter 4	TROUBLESHOOTING.....	30
<i>General Information</i>	SPECIFICATION SUMMARY	31

Chapter 4

INTRODUCTION

Congratulations on your purchase the 5-DISC CD-ROM Changer. The Panasonic SQ-TC512N CD-ROM Changer features Panasonic's 12× speed technology, which allows data to be accessed at high speed.

CD-ROM is read-only memory using an audio compact disc system as a media package which handles digital data.

This CD-ROM Changer uses CD-ROM data discs which bear the following mark.



This CD-ROM Changer uses digital audio compact discs which bear the following mark.



Supports Major CD-ROM Formats

CD-DA(Audio), CD-ROM, CD-ROM XA, Photo CD Multisession*
Video for Windows**, QuickTime for Windows**, CD-I***, Video-CD***

- * Requires a Photo CD viewer (not included)
- ** Requires Microsoft Video for Windows, Apple QuickTime for Windows (not included)
- ***Requires MPEG decoder board or MPEG decoder software and CD-I and/or Video-CD playback software (not included)

System Requirements

- 80386, 80486 or Pentium based ISA Computer
- 8 MB of RAM
- 3 MB of free space on Hard Disk
- EIDE hard disk (HDD) controller
- Windows NT 4.0 Ready
- Windows 95 Ready
- Supports DOS 5.0 & Higher, Windows 3.1 & 3.11

Feature Summary

- Half-height mounting 5-disc CD-ROM Changer
- Tray system permits easy exchange of any single disc.
- High Quality and Durability adopted by Stepping Traverse Motor
- 12×-speed data transfer rate [1800 KB/s (average)]
- Enhanced IDE Interface ATAPI support
- Easy visible "DISC WINDOW" to check which disc is loaded

NOTE:

A BIOS update may be required from your System Motherboard manufacturer.

Software Preface

"Panasonic Disc Director" is an application utility software designed to load, play and/or display five CDs such as compact discs (CD) for music or CD-ROM on your personal computer in the MS Windows operating environment. Disc Director is designed to be used with Windows 3.1, Windows 95. We recommend using Disc Director with 5 Drive letter configuration.

Notice Concerning Software

To playback video CDs, you will need special hardware and software (sold separately).

Some applications restrict the usage of the device driver. Please check the drive letter and select the correct disc tray for playing applications. If you don't know the correct slot number/drive letter number, please try from disc tray 1 to disc tray 5 in sequence.

As more applications and operating systems become "changer aware", we will continue to update our device drivers and Utility software. You may get the most up to date driver and utility software by downloading from our BBS or internet web site.

BBS #201-863-7845
Web address <http://www.Panasonic.com>

Conventions used in this guide to describe key operations

This manual describes key operation by using keytop letters enclosed in angle brackets (<and>). For example, "press<Y>" means to press the letter **Y** on the keyboard. Some of the keys, however, have symbols as keytop names and have specific functions. They are named according to their functions.

Example: **ENTER** or **RETURN** key is described as <Enter>.

Key Combination appears in the following format:

"Holding down the Ctrl and Alt keys, press the Del key" is described as "Press <Ctrl><Alt>".


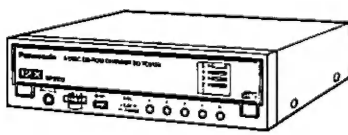
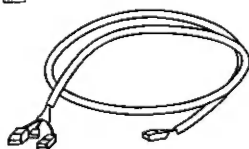
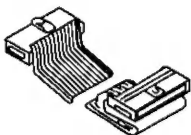
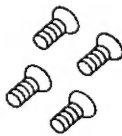

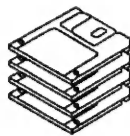
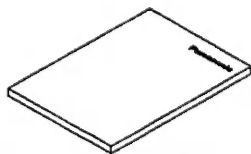
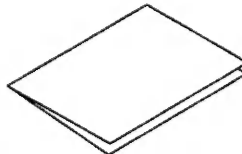
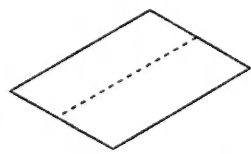
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IBM PC-AT is a trademark of International Business Machines Corporation.
Microsoft Windows, MS-DOS, MSCDEX and Video for Windows are trademarks of Microsoft Corporation.
QuickTime for Windows is a trademark of Apple Computer, Inc.
© Copyright LHA Version 2.13 H. Yoshizaki, 1988-1991
© Copyright Matsushita Electric Industrial Co., Ltd. 1997

IDENTIFYING THE KIT CONTENTS

The following is a checklist of items which are included with your Panasonic CD-ROM Changer. Be sure to save the original box and packing materials for future shipments or transportation of your Panasonic CD-ROM Changer.

<div><input checked="" type="checkbox"/></div> <div></div> <div>Please check and identify the supplied accessories.</div>	<div><input type="checkbox"/></div> <div></div> <div>5-Disc CD-ROM Changer</div>		
<div><input type="checkbox"/></div> <div></div> <div>Audio Cable 1 (REX0821)</div>	<div><input type="checkbox"/></div> <div></div> <div>Interface Cable 1 (REX0820)</div>	<div><input type="checkbox"/></div> <div></div> <div>Mounting Screws 4 (XST3+4)</div>	<div><input type="checkbox"/></div> <div></div> <div>Eject Pin. 1 (RFE0030)</div>
<div><input type="checkbox"/></div> <div></div> <div>Setup Disks 4</div>	<div><input type="checkbox"/></div> <div></div> <div>Operating Instructions Manual (This book)</div>	<div><input type="checkbox"/></div> <div></div> <div>Quick Reference Guide</div>	<div><input type="checkbox"/></div> <div></div> <div>Warranty & Registration Card</div>

NOTE:

The setup disks provided with this system are 3.5" high density floppy disks. If your system requires a 5.25" floppy disk instead, please contact Panasonic at 1-800-726-2797.

OPERATION GUIDE

Before you begin installing your Panasonic CD-ROM Changer, please take a few minutes to read the following Operation Guidelines.

I) WHEN TRANSPORTING

To avoid damage:

- Keep the original packing materials.
- Before transporting the CD-ROM Changer, remove the discs from the Changer and repack it in its original packing.

II) WHEN INSTALLING

Do not install the CD-ROM Changer in environments where it would be subjected to:

- High-temperature, high-humidity, or extreme temperature changes
- Dust
- Excessive vibration/sudden shock
- Inclines or angled operation
- Direct sunlight
- **Do not install the CD-ROM Changer in a vertical position.**

III) WHEN USING

- Never push objects of any kind through the cabinet slots.
- Never spill liquid of any kind on the CD-ROM Changer.
- Do not place objects on the unit.
- This CD-ROM Changer is not user serviceable; do not open or remove cover.
- **Do not insert foreign objects in the disc insertion slot and attempt to operate.**

IV) WHEN OPERATING

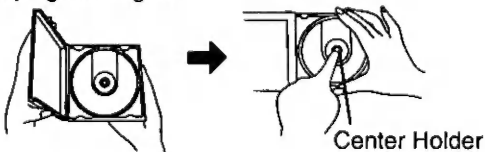
To avoid data errors:

- Do not move the CD-ROM Changer while operating.
- Do not operate the CD-ROM Changer immediately after a sudden change in temperature.

V) WHEN HANDLING DISCS

To remove a disc from its case

Press the center holder and lift the disc by grasping the edges.



To hold the disc

Hold the disc by the edges so the surface is not soiled with fingerprints.

Fingerprints, dirt and scratches can cause skipping and distortion.



If the surface is soiled

Wipe gently with a soft, damp (water only) cloth.



To store a disc in its case

Insert the disc with label facing upwards and press downwards at the center.



Handling precautions:

- If you are taking the disc from a cold to a warm environment, moisture may form on the disc. Wipe this off with a soft, dry, lint-free cloth before using the disc.
- Do not write on the label side with a ball-point pen or other writing instrument.
- Do not use record cleaning sprays, benzene, thinner, static electricity prevention liquids or any other solvent.
- Do not use CDs with poorly attached labels or stickers. Adhesive protruding from underneath stickers or left over from peeled off stickers can cause your stereo to malfunction.
- Do not use irregular shape CDs (heart-shape, octagonal, etc.).



Storage precautions:

Be sure to store discs in their cases to protect them from dust, scratches and warping.

Do not place or store discs in the following places:

- Locations exposed to direct sunlight
- Humid or dusty locations
- Locations directly exposed to a heat vent or heating appliance
- In the glove compartment or on the rear deck of an automobile

PARTS AND FUNCTIONS

FRONT VIEW

DISC TRAY

(inside)
Accepts up to 5 discs of CD-ROM or digital audio discs.

HEADPHONE JACK

Accepts a standard 3.5mm stereo mini plug to connect your headphones to the CD-ROM Changer.

DISC WINDOW

Easy visible "DISC WINDOW". Visual confirmation of which disc is loaded. The slot with the white mark missing is the disc which is currently loaded in the CD-ROM Changer.

VOLUME

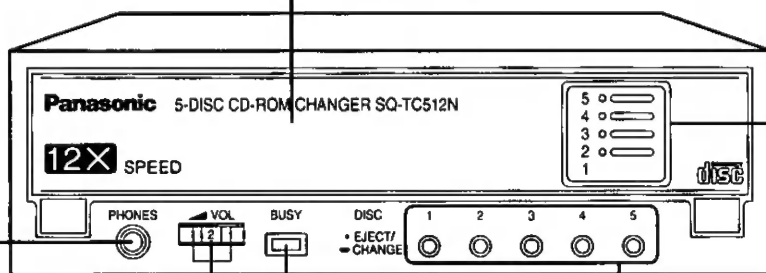
Adjusts the headphone audio output level.

BUSY INDICATOR

Lights when data is being accessed from the disc or when the CD-ROM Changer is playing an audio CD.

DISC EJECT/CHANGE BUTTONS (DISC 1-DISC 5)

Press quickly to eject a disc tray/press and hold for a moment to load the disc.



REAR VIEW

DIGITAL AUDIO CONNECTOR

Serves as a link from the CD-ROM Changer to digital audio equipment.

AUDIO CONNECTOR

Serves as a link from the CD-ROM Changer to an amplifier or sound board. An audio cable is included for connecting to a sound board.

JUMPER PIN

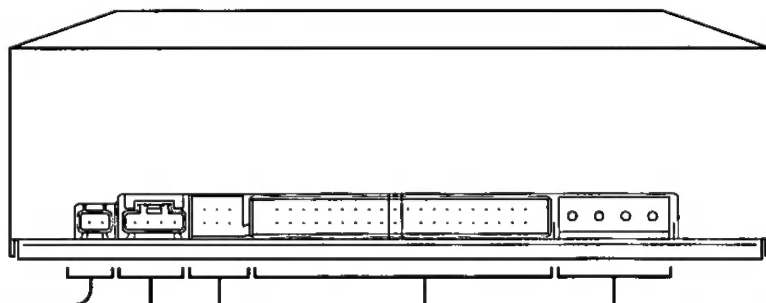
These are used to set the ID. Please refer to pages 9 and 11 for more information.

DC POWER CONNECTOR

Connects your CD-ROM Changer to the power source inside your computer via the DC power cable (not included).

INTERFACE CONNECTOR

Connects your CD-ROM Changer to your computer's EIDE interface port via the included interface cable.

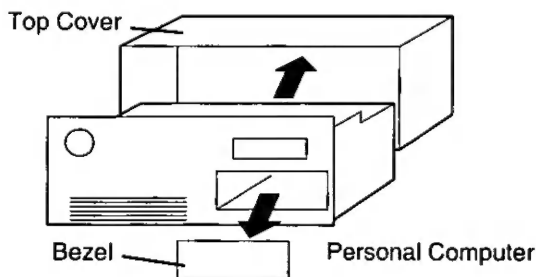


INSTALLING THE CD-ROM CHANGER

Before Installation

Read this section completely before proceeding. Consult your system operation manual for CPU disassembly instructions.

- 1 Turn off your system and all connected devices.
- 2 Disconnect all AC power cables.
- 3 Remove the top cover from your system.
- 4 Remove the bezel covering a vacant disk drive bay.

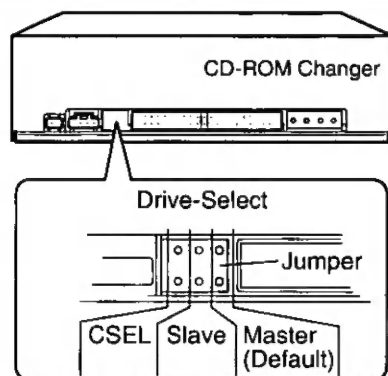


Installing the CD-ROM Changer

- 1 Remove the Changer from its packaging.

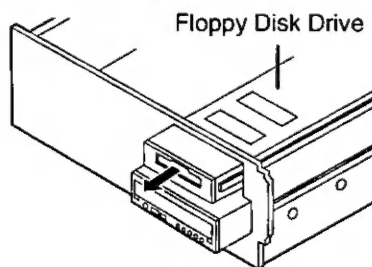
- 2 Check jumper pin setting for proper ID (Master)*.

*Set to SLAVE if you connect to your systems Primary HDD IDE Controller. Most installations do not require changing the jumper pins.

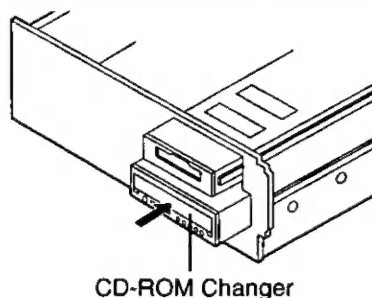


- 3 Look above your vacant disk drive bay. If it is occupied by a floppy disk drive: **It might be necessary to slide the floppy disk drive forward a couple of inches to ease insertion of the "Big 5".**

Do not disconnect its cables. This may allow for easier CD-ROM Changer installation.



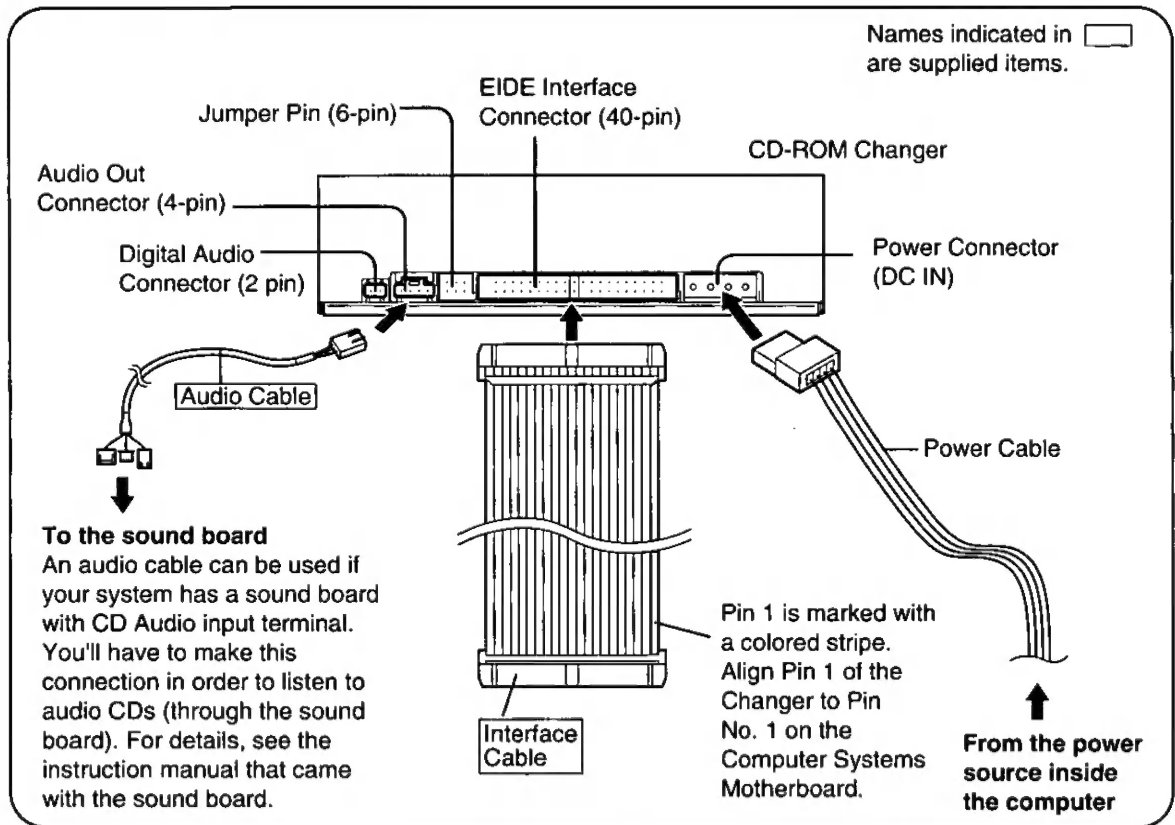
- 4 Slide the CD-ROM Changer into the vacant bay until it is parallel with the floppy disk drive. Some systems require mounting.



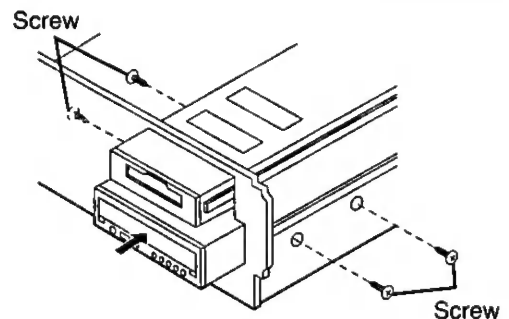
(Continued on next page)

INSTALLING THE CD ROM CHANGER

- 5** Connect the DC power cable, interface cable and audio cable.

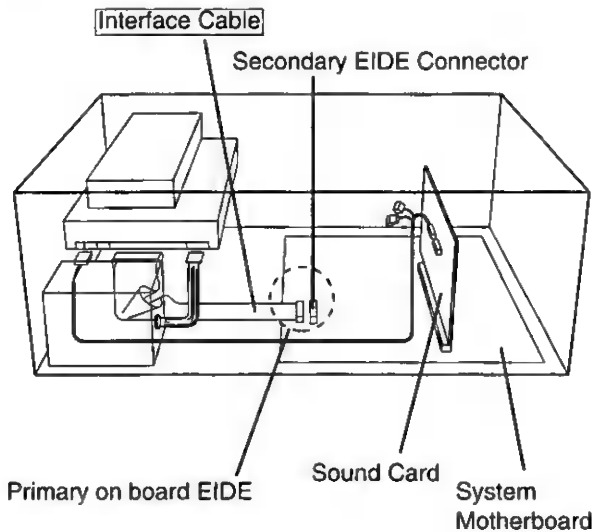


- 6** Firmly slide the Changer into the drive bay. Secure with included screws.

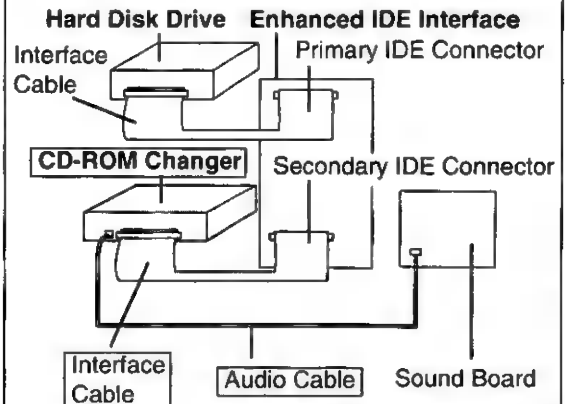


- 7** Reattach the top cover and reconnect your peripheral devices and AC power.

For most Enhanced IDE type computers



For your reference: Recommended Connection



NOTE:

Some older system do not have the EIDE interface built into the Motherboard. Please consult your system manual or dealer.

Other Settings (Jumper Pin)

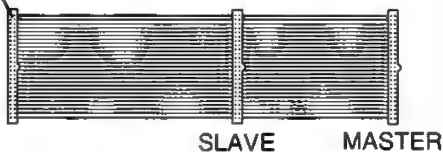
We recommend that you connect the CD-ROM Changer as described on pages 9–11. If, for some reason, your computer does not allow this configuration, note the following **Jumper pin setting options**.

Changing the jumper pin setting

You will have to change the master-slave jumper pin in the following instances:

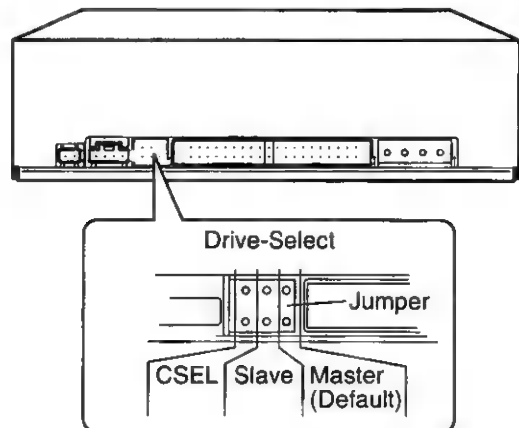
A single EIDE cable has connectors for multiple devices.

Connect to System Motherboard.



- With a single cable you may need to change the master/slave pin.
- With two devices connected, one must be set to slave, and the other set to master.
- To change the setting, pull the jumper off with tweezers and slide the jumper onto the correct pins.

CD-ROM Changer (Rear)



Restriction with Windows 95

Generally, only one **type** of device (ex. HDD or CD-ROM) should be connected to a single EIDE interface connector. For example, a hard disk drive and a CD-ROM Changer cannot both be connected to the Primary IDE connector port when using Windows 95. This restriction is for Windows 95 but not Windows 3.1.

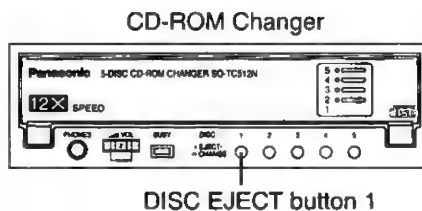
REMOVING THE SHIPPING SPACER

Removing the Shipping Spacer

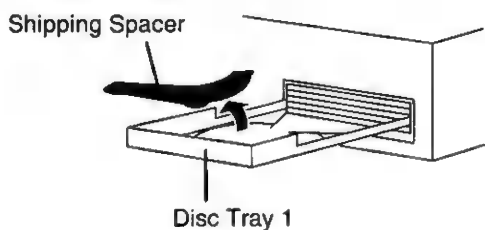
Before using the CD-ROM Changer, you must remove the shipping spacer from the disc tray. Install the Driver and Utility only after you have removed the spacer. Failure to do this may damage your disc on the changer.

1 Turn the computer ON.
The CD-ROM Changer will turn ON.

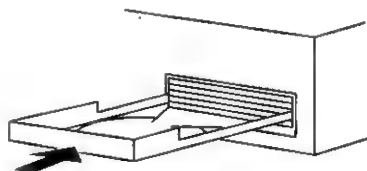
2 Press DISC EJECT button 1.
The disc tray 1 will eject.



3 Remove the shipping spacer.



4 Push the tray until it retracts automatically.



5 Turn OFF the computer.

NOTE:

Save the shipping spacer and box. You will need them when moving or shipping the equipment.

Inserting the Shipping Spacer

Be sure to take the following precautions before moving your Changer a considerable distance, shipping the changer, or taking it in for service.

1 Insert the shipping spacer into disc tray 1.

(This is also necessary if moving your computer with the CD-ROM Changer still installed.)

1 Turn your computer ON.

The CD-ROM Changer will turn ON.

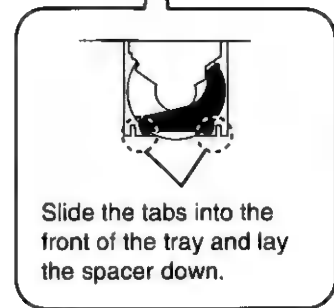
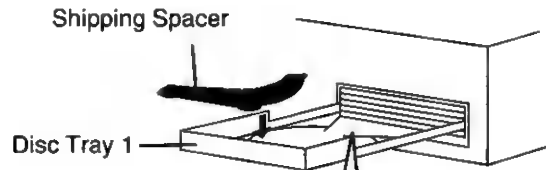
2 Press DISC EJECT button 1.

Disc tray 1 will eject.

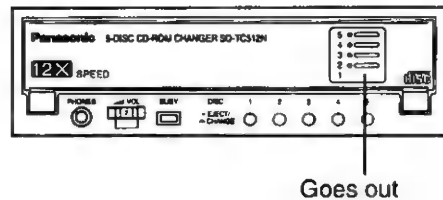
3 Insert the shipping spacer into disc tray 1.

4 Push the tray until it retracts automatically.

5 Turn OFF the computer.



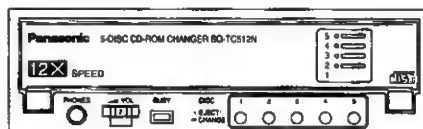
2 Check for the white mark next to tray "1" on the disc window. If the white mark is still visible, press and hold DISC EJECT button 1 until the white mark disappears.



3 Your Changer is ready for shipping. Pack the Changer in the original box.

INSERTING/REMOVING DISCS

- 1 Turn the computer ON.**
The CD-ROM Changer will turn ON.
- 2 Press one of the DISC EJECT buttons.**
The disc tray will eject.

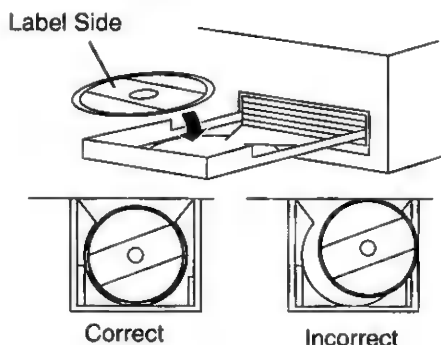


DISC EJECT buttons

- 3 Set the disc in the tray. The label must be facing upwards.**

NOTE:

Be sure to see the disc correctly in the tray.



- 4 Push the tray until it retracts automatically.**

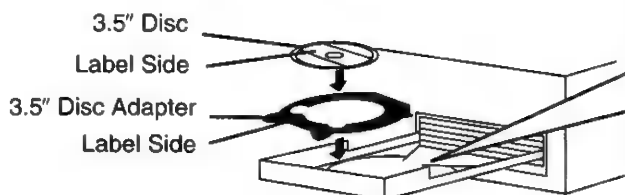
- 5 Repeat steps 2 and 3 until you have loaded all your favorite discs.**

NOTE:

- Do not insert any objects other than an Audio CD or a CD-ROM disc into the disc tray. This could result in a malfunction and jam the Changer.
- Do not manually force the tray open or press down hard on the tray when loading a disc, since this may result in damage or malfunction of the tray.
- When the CD-ROM Changer is not in use, keep the tray closed to protect it from dust and dirt.
- **You cannot open/close the disc tray while using the headphones jack.**

For 3.5" discs

Use the disc adapter (option: RMQ0611) designed specifically for this unit. As shown below, insert the adapter in the tray, then the disc in the adapter.



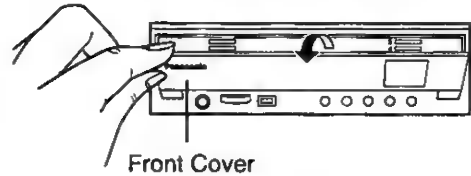
Keep the latches on the adapter to the bottom when fitting it into the tray.

CAUTION:

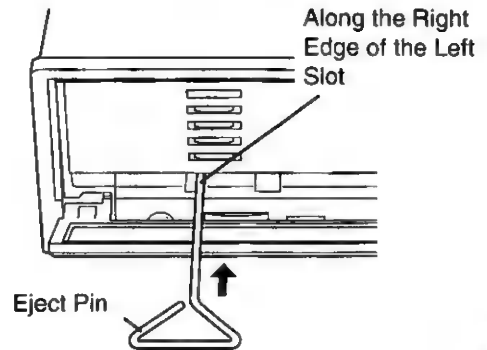
Do not use other types of CD adapters. Incompatible products could cause the equipment to malfunction.

If the tray does not eject automatically

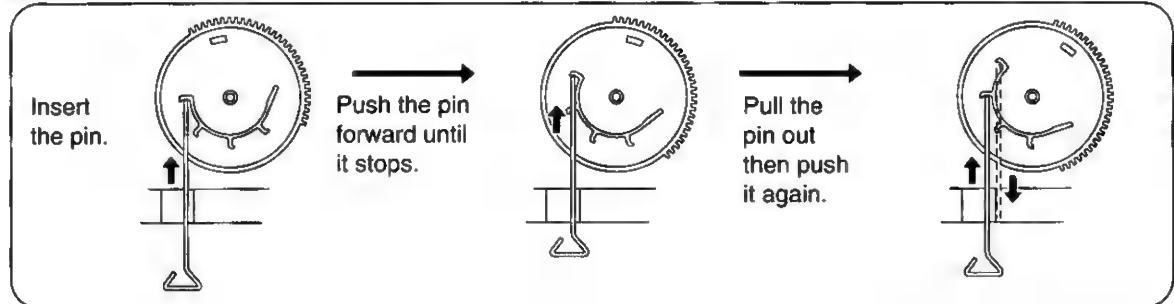
- 1** Turn OFF your computer.
- 2** Carefully open the front cover of the CD-ROM Changer.



- 3** Insert the eject pin.
 - 1** Gently push the pin along the right edge of the left slot until the pin stops. The tray will eject a little.
 - 2** Pull the pin out and then push it again about four times until the tray is extended enough that you can pull it out by hand.

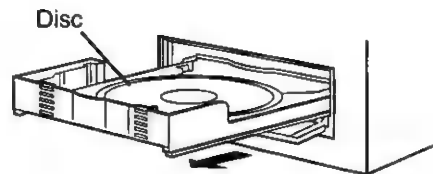


Mechanism inside works as follows:



- 4** Pull the tray the rest of the way by hand. The tray currently in the play position and the tray immediately below it can both be pulled out by hand.

- 5** Remove the disc from the tray and turn ON your computer. This is to check if the Changer returns to normal position.



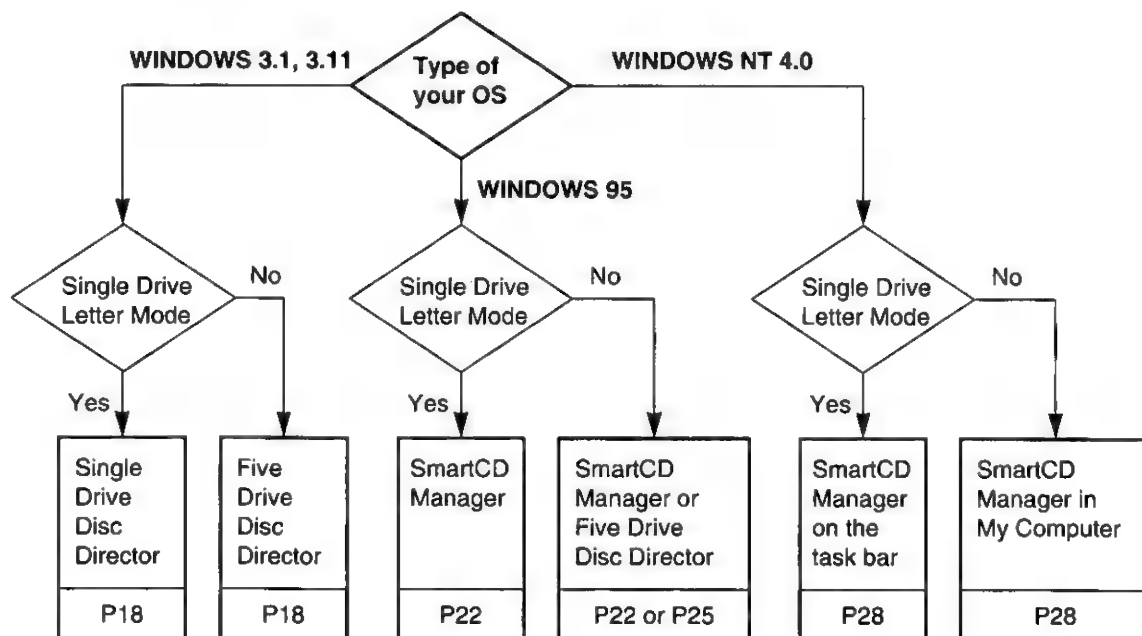
If the CD-ROM Changer becomes jammed, please contact our hotline for assistance.
(1-800-726-2797)

INSTALLING & OPERATING THE SOFTWARE

The Panasonic SQ-TC512N CD-ROM Changer provides a variety of application utility softwares designed to control, play and/or display five CDs on your computer. However the application utility which you can use differs in accordance with your OS (Operating System) installed to your computer as shown in the following diagram.

OS	SmartCD manager		Panasonic Disc Director		
	Five Drive Letter Mode	Single Drive Letter Mode	Five Drive Letter Mode	Single Drive Letter Mode	SOS Utility
WINDOWS 3.1, 3.11	Unusable	Unusable	Five Drive Disc Director	Single Drive Disc Director	Available
WINDOWS 95	Available in My Computer	Available on the task bar	Five Drive Disc Director	Unusable	Unusable
WINDOWS NT 4.0	Available in My Computer	Available on the task bar	Unusable	Unusable	Unusable

We recommend that you follow the flow-chart described below as a reference when you use an application utility in the optimum condition.



Please view or print the included Readme. txt file and refer to the Online help provided within each application utility for more detailed information.

Installing the Utility and the device driver

This section explains how to install the Panasonic CD-ROM Changer Utility and the changer device driver for Windows 3.1 and 3.11 and MS-DOS 5.0 or later on your computer's hard disk and outline what you should and can do after installation is complete.

To install the CD-ROM Changer Utility and the changer device driver, you need Setup Disk No. 1 For Windows 3.1/DOS (included) and your Panasonic 5-disc CD-ROM Changer SQ-TC512N.

NOTE: If you already installed another CD-ROM device driver, we recommend that you deactivate the existing device driver before performing installation. For help please view the Readme.txt file on the installation disc.

1 Turn the computer on.

If your system automatically loads Windows, you must exit Windows and reach the DOS prompt C:\. This explanation assumes that your floppy disk drive is designated "A" and your hard disk drive "C". If, however, you have used other letters to designate your drives, please substitute the appropriate letters.

2 Place the included Setup Disk No. 1 in the floppy disk drive.

3 Type A:<Enter>. The current drive changes to "A".

4 Type CD WIN31<Enter>.

5 Type SETUP31<Enter>.

6 Follow the instructions on the screen until installation is complete.

After you have installed the Changer Utility and the Driver Software for DOS/Windows 3.1 in your system, eject the Setup Disk from the floppy disk drive and reboot the system. When your computer is restarted, the CD-ROM Changer will be installed on your system. Please view and print the included Readme.txt file. (Refer to page 18.)

IMPORTANT:

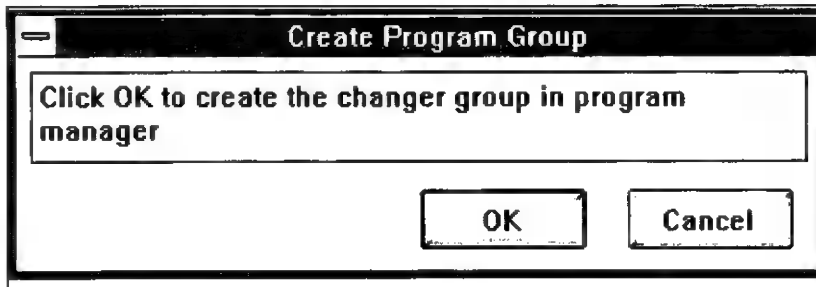
If you intend to upgrade your computer from Windows 3.1 to Windows 95, be sure to use the **SOS Utility** and change the "Number of CD-Drive" setting from "5" to "1". (For details, see page 19.) Otherwise, your computer may fail to load Windows 95.

Using the Panasonic Disc Director in DOS/Windows 3.1

Panasonic Disc Director provides great new tools so that you can easily access your discs. It will setup the software for you, **play audio**. You do not need to remember which slot you used to install the software. **Disc Director will adjust or auto-run the software you select.**

Windows 3.1 display

When you restart Windows (for the first time) after the installation, the following display will appear:

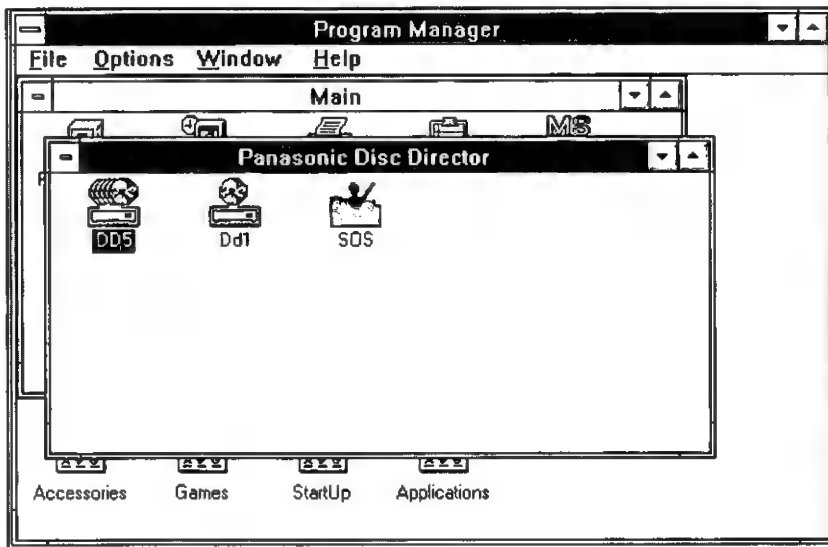


Read this dialog box carefully, important information will be in this dialog box.



Click **OK** if you agree.

The installation program will now create a program manager group called "PDD" (Panasonic Disc Director).



Double click this icon to use the Five Drive Disc Director. (See page 25.)



Double click this icon to use DD1 Single Drive Letter slot selector.



Double click this icon to use the SOS Utility. (See next page.)

Panasonic Disc Director utilities have many very useful features. Please view or print the [Readme.txt](#) file which is located in the C:\DD5 directory.

SOS Utility (For DOS/Windows 3.1 only)

Use the SOS Utility for the following purposes:

1. When you change the CD-ROM hardware connection and/or jumper setting

We recommend that the SQ-TC512N be connected as described on pages 9 to 11 (CD-ROM Changer is connected to Secondary connector & Master pin). However, if for some reason your computer does not allow for this configuration, you can change:

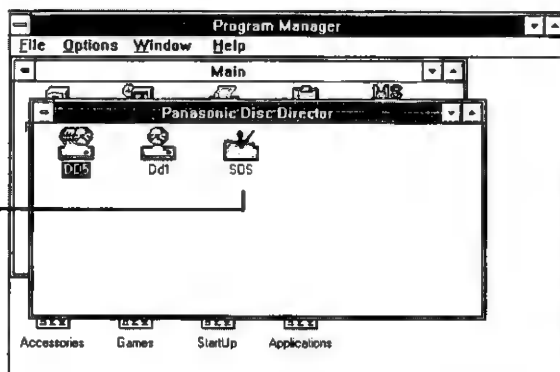
- the IDE connector
- Jumper pin setting and
- IRQ setting

by using the SOS Utility. Of course, you need to change the hardware setting beforehand.

2. When you upgrade your computer from Windows 3.1 to Windows 95

Be sure to change the "Number of CD-Drive" setting from "5" to "1". Otherwise, your computer may fail to load Windows 95.

1 Double click SOS Utility.



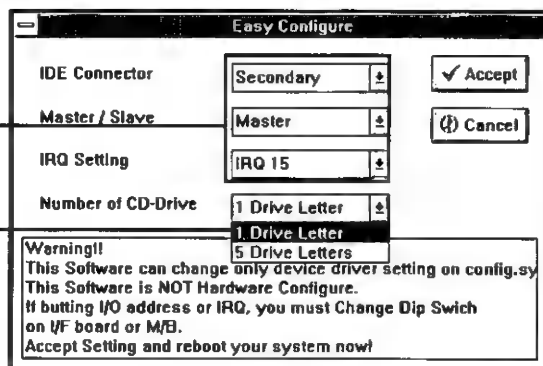
2 If changing the hardware connection and setting...
Select the device driver setting.

If upgrading to Windows 95...

Select "1".

If you select 5 drives for Windows 3.1... we recommend using the Disc Director Software Utility.

If you select 1 drive for Windows 3.1... we recommend using the DD1 (Single drive letter) Utility.



NOTE: Follow the instructions on the display carefully.

INSTALLING & OPERATING UNDER WINDOWS 95

Installing the Utility and the device driver

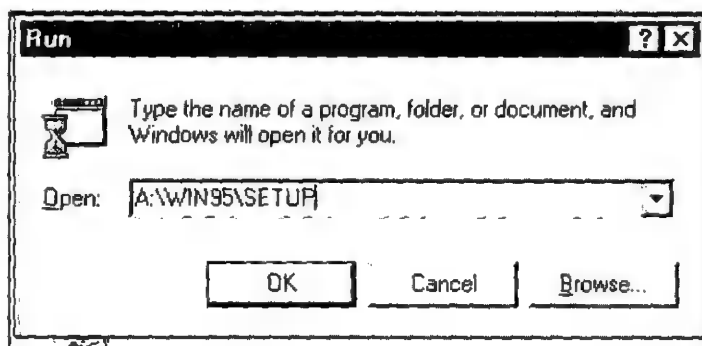
This section explains how to install the Panasonic CD-ROM Changer Utility and the changer device driver for Windows 95 on your computer's hard disk and outlines what you should and can do after installation is complete.

To install the CD-ROM Changer Utility and the changer device driver, you need Setup Disks No. 1 and No. 2 For Windows 95 (included) and your Panasonic 5-disc CD-ROM Changer SQ-TC512N.

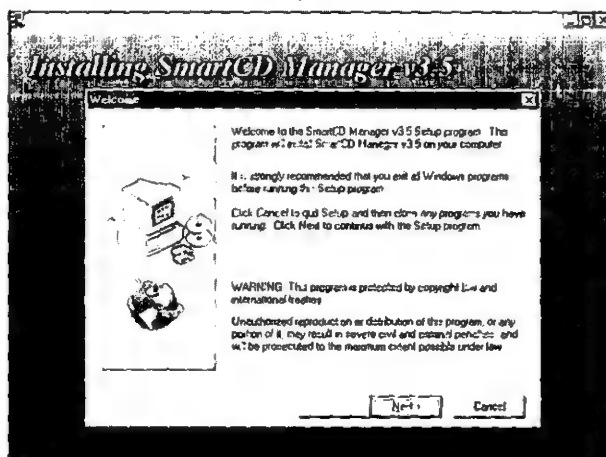
1 Place Setup Disk No. 1 in your floppy disk drive A:.

2 Click **Start** on the Windows task bar and choose **Run...**. The Run dialog box appears.

3 Type "A:\WIN95\SETUP" in the text box and click **OK**.

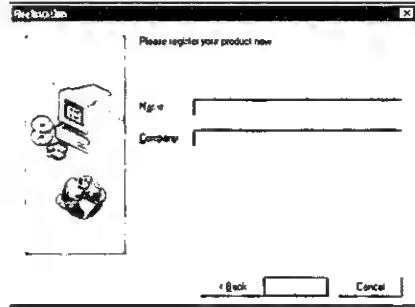


4 The Welcome Display appears. Click **Next** to start installing the SmartCD Manager V3.5 Setup program on your computer.



5 Check the Destination Directory and click **Next** by following the instructions on the Destination Location Display.

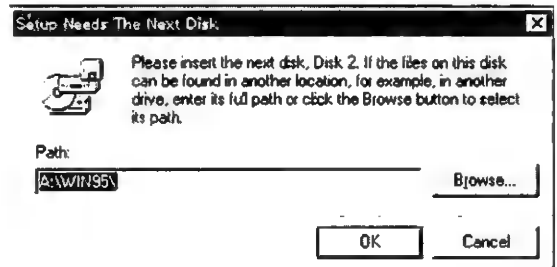
6 The Registration Display appears. Type your name and, if necessary, your company name, then click **Next** or press <Enter>.



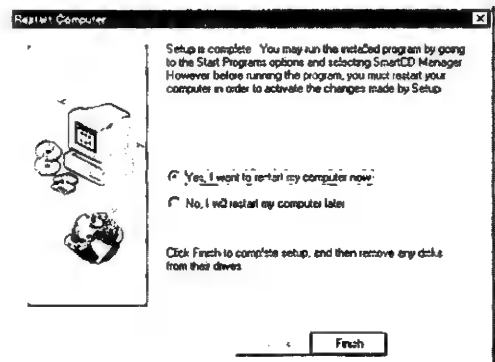
7 The Setup Options Display appears. Select the operating mode (single drive letter mode or five drive letter mode) on the dialog box and click **Next**.

8 The Next Disk Display appears. Eject Setup Disc No. 1 and place Setup Disk No. 2 in your floppy disk drive A: Check if the Path Setting is correct and click **OK**.

If you want to modify the path, follow the instructions on the screen.



9 The Restart Computer Display appears and shows Setup of the Disc Director and the device driver is complete. However before running the program, you must restart your computer in order to activate the changes made by Setup. Click **Finish** and then remove Setup Disk No. 2 from the drive A:.



Your computer will be restarted and the display of Microsoft's Windows 95 will appear.

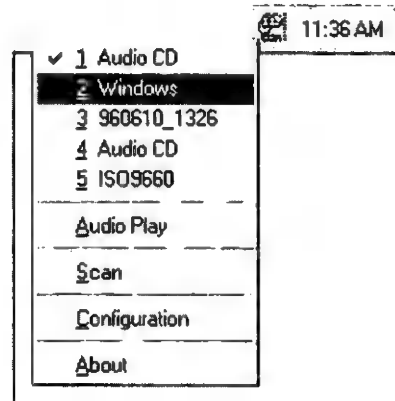
Using the SmartCD Manager

SmartCD Manager is an innovative solution for managing collections of CDs. Using a unique single drive letter system. While taking advantage of Microsoft's Windows 95 operating system, SmartCD Manager allows you to use CD Changer just like a CD-ROM drive.

SmartCD Manager is comprised of two parts: The SmartCD Manager and the SmartCD Audio Player.

To start the SmartCD Manager

- 1** Right-click on the SmartCD Manager icon on the Windows task bar.
- 2** Single-click the volume name of any CD-ROM currently mounted on the pop-up menu to select a CD-ROM.
When a CD-ROM preprogrammed for Auto Run is selected, the program of the selected disc will be started.



Scan

The Scan utility can be accessed by clicking "Scan" on the pop-up menu.

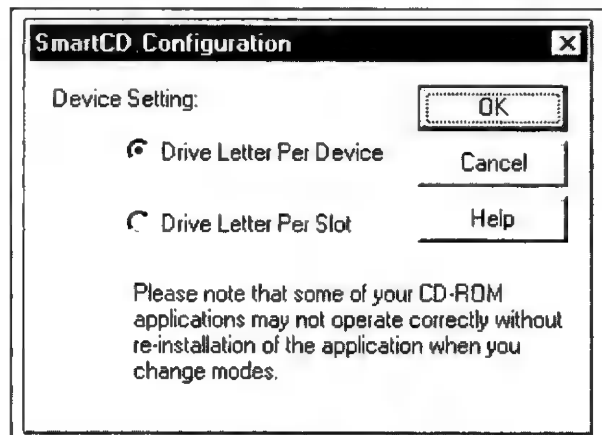
Select the Scan utility if you have changed one or multiple CDs in the device. This utility will scan all slots in the Changer and update the icon display in My Computer and Explorer.

NOTE: The Scan utility is not necessary when operating in single drive letter (drive letter per device) mode.

Configuration

The Configuration dialog box is accessed by clicking "Configuration" on the pop-up menu.

The Configuration option allows you to select how the device you are using will display its contents within Explorer. Choose the Drive Letter per Device radio button if you would like any mini-changer you are using to appear under one drive letter. Choose the Drive Letter per Slot radio button if you would like each individual CD in the Changer to be displayed under its own drive-letter.

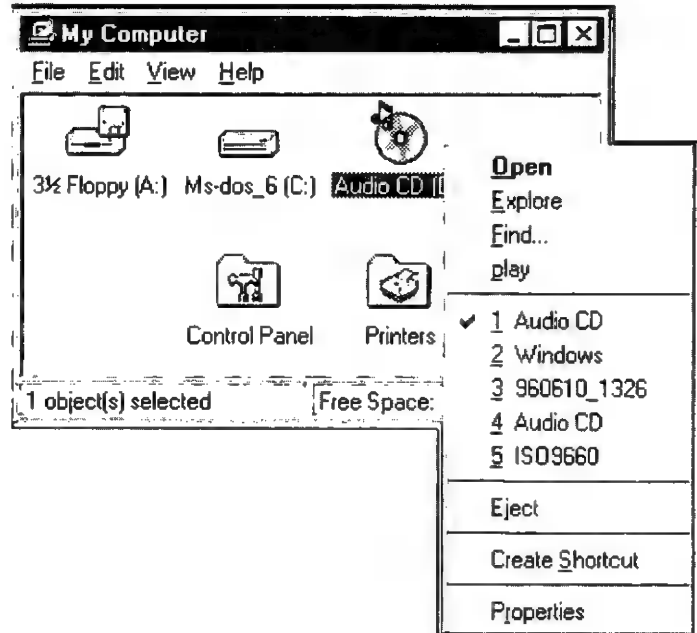


- 1** Select the Device Setting on the dialog box and click **OK**.
- 2** Follow the message displayed on the screen and click **OK**.
Your computer will be rebooted to invoke your configuration settings.

Please refer to the "On-Line Help" for more information about the SmartCD Manager.

You can also start the SmartCD Manager from the "Program" group when selecting the "Start" icon on the Windows task bar.

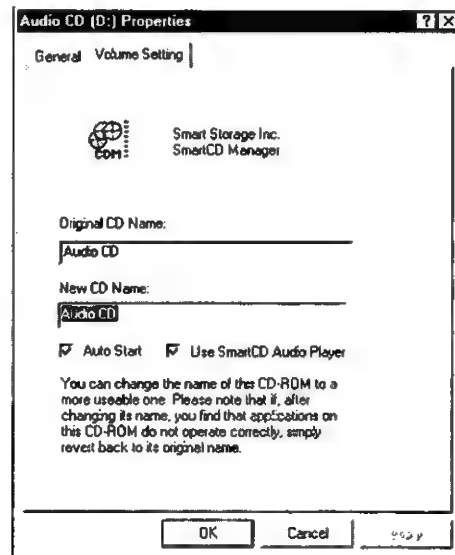
By right-clicking on the icon display of any mounted CD, any other CDs can be accessed by choosing the volume name of a CD from the pop-up menu.



Volume Settings

The Volume Settings dialog box is accessed by choosing the Volume Settings tab within the Properties dialog box. To access the Properties dialog box from Explorer, right-click on any mounted CD and choose "Properties" from the pop-up menu.

- The Volume Settings dialog box allows you to:
- change the volume name of a CD by entering a new name in the New CD Name field, and
 - set whether or not an Auto-Start CD-ROM will automatically launch when mounted by checking the Auto-Start check box.



If the CD you have selected to Auto-Start is an Audio CD, you can also check the Use SmartCD Audio Player check box to automatically load this application when this particular Audio CD is mounted.

NOTE: If you do not choose this option, Microsoft's Windows 95 CD Audio Player will launch instead.

SmartCD Manager includes an Audio Player that plays your favorite Audio CDs from your CD Changer.

Using the SmartCD Audio Player

The SmartCD Audio Player provides an attractive, straight forward medium for listening to your audio CDs.

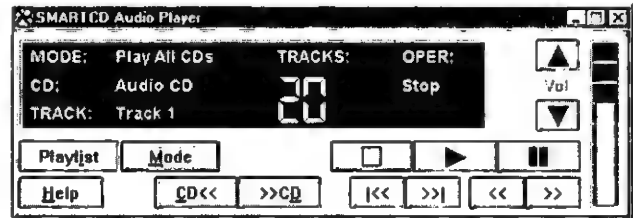
To start the SmartCD Audio Player

1 Right-click on the SmartCD Manager icon on the Windows task bar.

2 Single-click "Audio Play" on the pop-menu.

NOTE: "Audio Play" with function only when an Audio CD is selected.

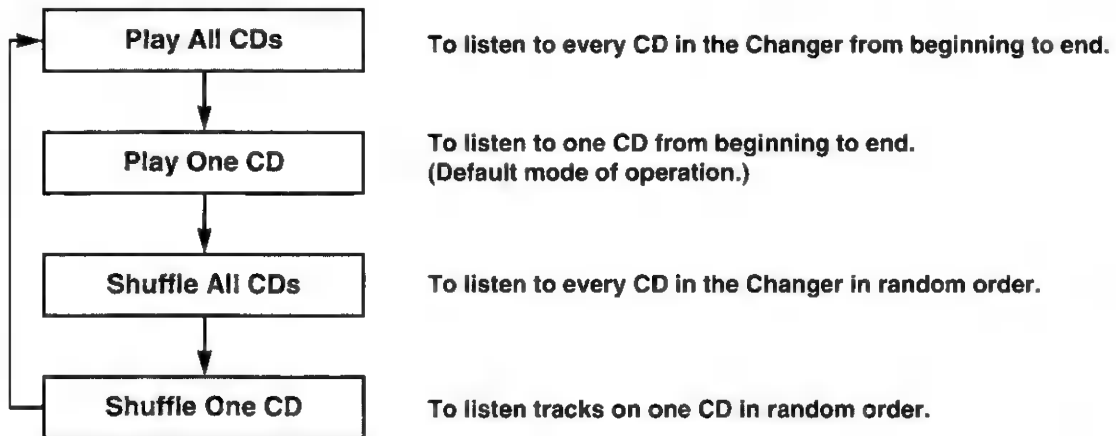
The Audio Player Display appears and playback starts.



The Display informs you of the current status of the audio player, including mode of operation, the currently mounted CD, current track number, total number of tracks on the CD, elapsed play time and current operation.

Playback Modes

This utility provides the following operation modes for playing Audio CDs and each time you click **Mode** on the display in Stop mode, operation modes will change in the following sequence:



NOTE: Before selecting the CD you want to listen to, run the SmartCD Manager and scan all CDs in the Changer (unnecessary if you have previously scanned them).

Programming the Audio Player

SmartCD Audio Player's programming features allow you to input track names and create customized playlists of your favorite songs on one or more CDs.

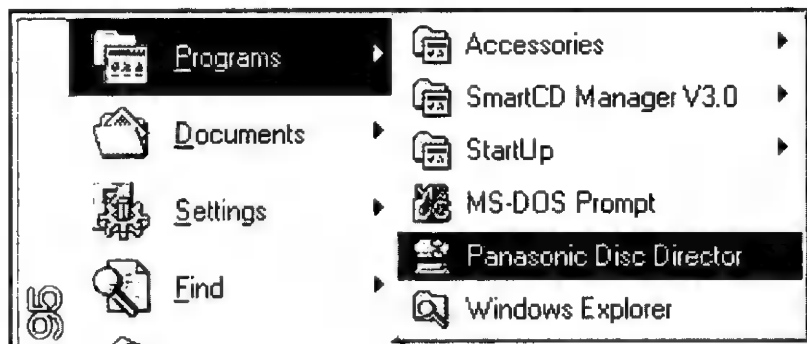
Click **Playlist**.

The programming panel drops down.

Please refer to the online help by clicking **Help**, for the additional information on How to program the Audio Player, provided within the SmartCD Audio Player application.

Using the Panasonic Disc Director in Windows 95

Select "Start" → "Programs" → "Panasonic Disc Director".



We recommend using Disc Director with five drive letter configuration.

The Disc Director dialog box appears.



AutoRun (Under Windows 95 only)

To run the program of the selected disc

When a CD-ROM preprogrammed for Auto Run is selected, pressing this button will start Auto Run.

Play

To display the Audio CD Player dialog box (See next page.)

You can select a specific audio track or start at the beginning of the tracks.

Setup

To setup/install the software and store the library information of the disc for future use

Open

To eject the selected disc and then close the disc tray

After exchanging discs, the disc icon will show the information of the newly inserted disc.

NOTE: You cannot open/close the disc tray while using the headphones jack.

Scan

To scan all CD-ROM Changer slots and other CD-ROM drives attached to your computer (See next page.)

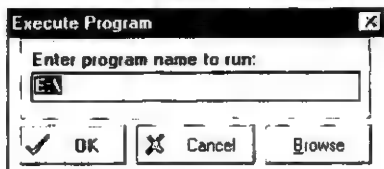
Shows the disc type

You can scroll the disc icons to see all drives attached on your computer.

By **single clicking** the icon, the drive will be selected.

If you **double click** the icon...

the following dialog box will appear.



- Enter the program name you want to start and select OK to run the program.
- Just select OK without entering any program name, then the directory of the disc will appear in the dialog box.

Shows the associated information about the disc you selected (highlighted icon)

For your reference:

Helpful hints are provided. Just move the mouse cursor onto the buttons, and the Hint that explains the button is displayed.

Scanning Disc Titles

The scan function is a convenient way to "inventory" the contents of the Changer.

Click .

Each disc will be loaded (one at a time) into the CD-ROM Changer. Its volume label or disc type will then be registered into the title window.

After completing the scanning of all 5 discs, all titles appear.

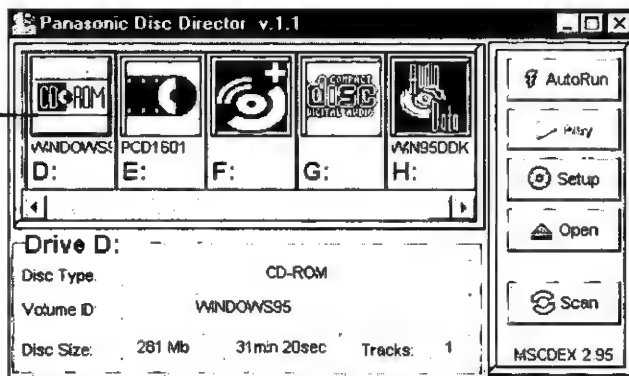
NOTE: Scanning the contents of the CD-ROM Changer may take approx. 1 minute.



Playing Audio CDs

1 Single click any of the disc icons to select an audio CD.

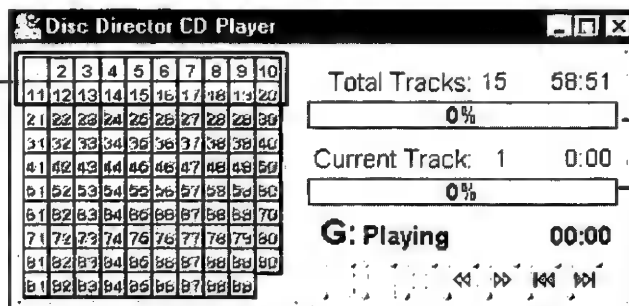
2 Click .



The Audio CD Player dialog box appears.

3 Click any numeric icon of the desired track.

Playback starts from the selected track.



Elapsed playing time of the current track

Elapsed playing time of the disc

INSTALLING & OPERATING UNDER WINDOWS NT 4.0

Installing the Utility and the device driver

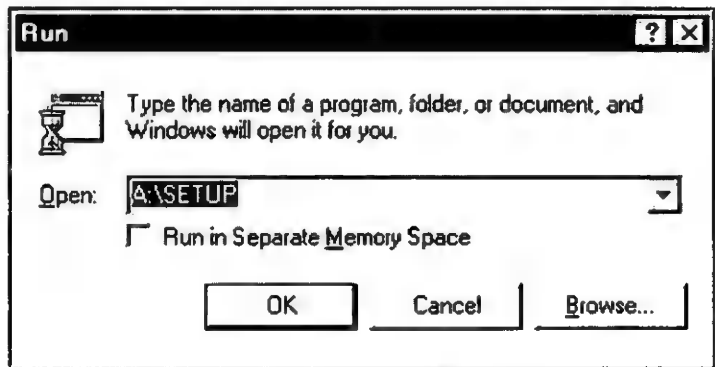
This section explains how to install the Panasonic CD-ROM Changer Utility and the changer device driver for Windows NT 4.0 on your computer's hard disk.

To install the CD-ROM Changer Utility and the changer device driver, you need Setup Disks No. 1 and No. 2 For Windows NT 4.0 (included) and your Panasonic 5-disc CD-ROM Changer SQ-TC512N.

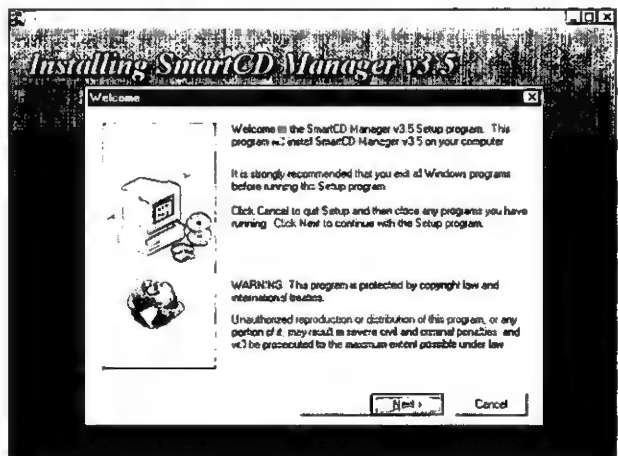
1 Place Setup Disk No. 1 for Windows NT 4.0 in your floppy disk drive A:.

2 Click **Start** on the Windows task bar and choose **Run...**. The Run dialog box appears.

3 Type "A:\SETUP" in the text box and click **OK**.



4 The Welcome Display appears. Click **Next** to start installing the SmartCD Manager V3.5 Setup program on your computer.



5 Follow the procedures from step 5 through 9 on pages 20 and 21.

NOTE:

The icon of CD-ROM mounted in the CD-ROM Changer may be displayed in My Computer without Setup of the Utility and the device driver. However, be sure to install them before using the CD-ROM Changer. Otherwise, the CD-ROM Changer may not function properly.

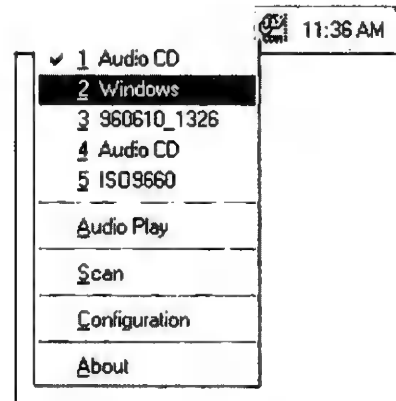
Using the SmartCD Manager

SmartCD Manager is an innovative solution for managing collections of CDs. Using a unique single drive letter system. While taking advantage of Microsoft's Windows NT 4.0 operating system, SmartCD Manager allows you to use CD Changer just like a CD-ROM drive.

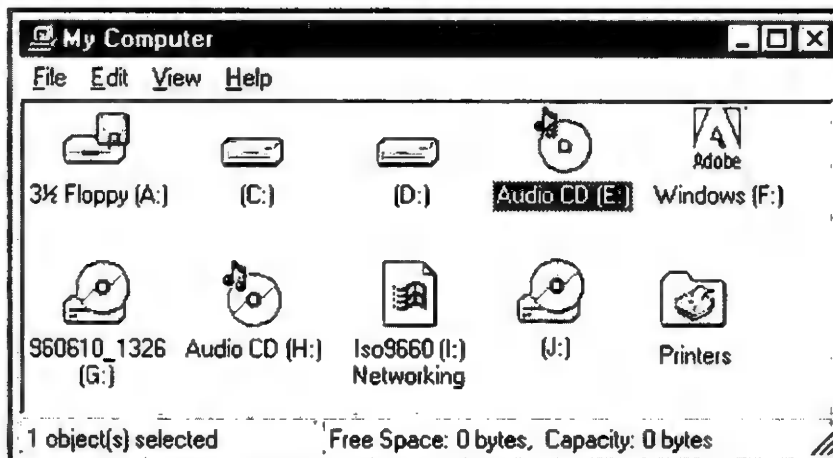
SmartCD Manager is comprised of two parts: The SmartCD Manager and the SmartCD Audio Player.

To start the SmartCD Manager

- 1** Right-click on the SmartCD Manager icon on the Windows task bar.
- 2** Single-click the volume name of any CD-ROM currently mounted on the pop-up menu to select a CD-ROM.
When a CD-ROM preprogrammed for Auto Run is selected, the program of the selected disc will be started.



You can also access any CD directly by double clicking on the icon display of any mounted CD in My Computer. We recommend using this way in Five Drive Letter (Drive Letter Per Slot) mode.



Refer to page 22 and 23 for more details about the "Scan", "Configuration" and "Volume Setting" utilities.

Using the SmartCD Audio Player

The SmartCD Audio Player provides an attractive, straight forward medium for listening to your audio CDs.

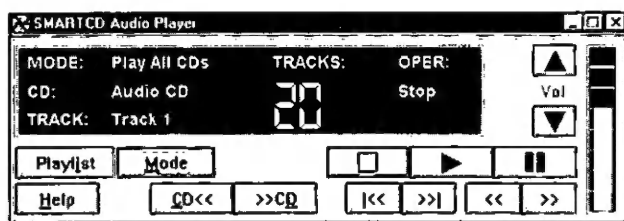
To start the SmartCD Audio Player

1 Right-click on the SmartCD Manager icon on the Windows task bar.

2 Single-click "Audio Play" on the pop-menu.

NOTE: "Audio Play" with function only when an Audio CD is selected.

The Audio Player Display appears and playback starts.



Refer to page 24 for more details about the SmartCD Audio Player.

Using Microsoft's Windows NT CD Player

You can use another medium called "CD Player", originally provided within Windows NT 4.0, to play your audio CDs. We recommend using "CD Player" with Five Drive Letter (Drive Letter Per Slot) configuration, because more than one CD-ROM drive must be installed to change to another CD.

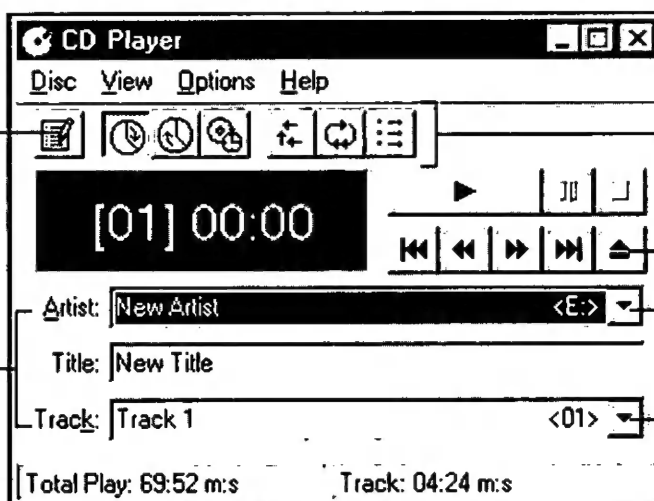
To start Microsoft's Windows NT CD Player

Select "Start"→"Programs"→"Accessories"→"Multimedia"→"CD Player".

The CD Player Display appears.

Icon to edit "Play List"
By clicking the icon, the Disc Settings dialog box will appear to create a play list.

Disc/Track Info



Toolbar

To eject the selected disc from the drive

To switch to a different CD

To specify the track to be played

Your CD continues to play even if you minimize the CD Player Display.

Please refer to the online help, for the additional information about MS Windows NT CD Player, provided within the CD Player application.

TROUBLESHOOTING

Problem	Check these possibilities:	Page
Tray doesn't eject.	Is the power cord plugged in correctly?	10
	Is the CD or CD-ROM inserted properly?	14
	Disconnect the headphones.	8
Computer doesn't boot.	Is there a disk in the floppy disk drive?	—
	Is the IDE cable plugged into the expansion card correctly?	—
	Does Pin 1 of the EIDE cable have the proper orientation?	10
CD player doesn't respond to computer commands.	Is the device driver installed correctly?	17, 20
	Is the IDE interface cable connected properly?	21, 27
	Completely inserted, Pin 1 connected to pin 1 etc.	10
		10
CD or CD-ROM won't play.	Are you trying to use a CD or CD-ROM that is not compatible with this machine?	7, 14
	Are you using the appropriate CD or CD-ROM software?	
	Is the CD or CD-ROM inserted into the tray properly?	
	Is the CD or CD-ROM inserted with the label side up?	
	Is the CD or CD-ROM scratched, broken, warped or dirty?	
	Is there condensation on the machine? (Is so, leave the machine on for an hour and try again.)	
No sound comes out of headphones.	Is the volume adjusted properly?	8
	Are the headphones properly connected?	
Device driver won't load in Windows 95.	1) Existing real mode driver in config. sys	—
	2) IDE controller is not set correctly—check control panel in Windows 95	

NOTE:

When returning the product to the Service Center, please also print out the personal computer's AUTOEXEC.BAT and CONFIG.SYS files and send with the product.

SPECIFICATION SUMMARY

Interface		ATAPI Interface Specified Rev. 2.6. mode 4 (40 Pin Connector)
Playable Disc Format		CD-ROM (mode 1 and mode 2) CD-ROM XA (mode 2 form 1 and form 2) PHOTO CD (Single and multisession)* ¹ CD-DA, CD Extra (CD Plus) Video CD* ² , Video for Windows* ²
Data Transfer Rate		1200–1900 KB/s 1800 KB/s (average)* ³ 16.7 MB/s (PIO mode 4 with IORDY)
Access Time	1/3 Stroke	130 ms typ. (average)
Buffer Memory Capacity		128 KB
Error Rates	Hard Read Errors	Less than 10 ⁻¹²
	Soft Read Errors	Less than 10 ⁻⁹
Output Level (Impedance)	Headphone	0.6 Vrms (32Ω)
	Line Out	0.8 Vrms (50 kΩ)
Frequency Response	Line Out	20 Hz–20 kHz (+0.5, –3 dB)
S/N	Line Out	More than 85 dB
Temperature	Operating	5 to 45°C
	Storage	–20 to 60°C
Humidity	Operating	20 to 90% Rh (Non-condensing)
	Storage	20 to 90% Rh (Non-condensing)
Source Voltage		DC 5 V±5% DC 12 V±10%
Source Current		1.2 A (DC 5 V) 1.5 A (DC 12 V)
Dimensions (W×H×D)		146×41.3×224 mm (5-3/4"×1-5/8"×8-13/16")
Weight		1.3 kg (2.9 lb.)

*¹Require Disc adapter (Option)

*²Requires Viewer or Playback Software

*³Average of 650 Mbytes Transfer time

Note:

Specifications are subject to change without notice.

Weight and dimensions are approximate.

Panasonic Computer Peripheral Company
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